

## Memorandum

To: ROBERT OGLESBY  
Executive Director

Date: October 24, 2012

Telephone: (916) 654-5013

From: **California Energy Commission** - Dave Ashuckian, Deputy Director  
1516 Ninth Street  
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Efficiency and Renewable Energy Division

Subject: **POSSIBLE APPROVAL OF THE CITY OF GLENDALE'S LOCALLY ADOPTED BUILDING ENERGY STANDARDS TO REQUIRE GREATER ENERGY EFFICIENCY THAN THE 2008 BUILDING ENERGY EFFICIENCY STANDARDS**

### Summary of Item

The California Public Resources Code establishes a process that allows cities or counties to adopt and enforce locally adopted energy standards that are more stringent than the statewide standards. This process, described in Section 25402.1(h)(2) and the *2008 Building Energy Efficiency Standards*, Title 24, Part 1, Section 10-106 (Standards), allow cities or counties to adopt new versions of the Standards before their statewide effective date (early adoption), require additional energy efficiency measures, or set more stringent energy budgets. The governing body of the city or county is required to make a determination that the standards are cost effective and adopt the findings at a public meeting. The city or county is required to file this determination of cost effectiveness with the California Energy Commission. The Energy Commission must find that the standards will require the diminution of energy consumption levels permitted by the current Standards. The proposed local ordinance cannot be enforced until it is approved by the Energy Commission.

August 15, 2012, the City Council of the City of Glendale submitted an application for approval for their local energy standards (Ordinance No.5736) which will meet or exceed the *2008 Building Energy Efficiency Standards (Title 24, Part 6 of the California Building Standards)*.

The ordinance requires that newly constructed single family homes greater than 5,000 square feet, not including the garage, must comply with the Optional Tier 1 requirements of the *California Green Building Standards Code (Title 24, Part 11 of the California Building Code)* made mandatory by this Ordinance. This will include exceeding the 2008 Title 24, Part 6 Standards by 15 percent, the installation of a cool roof and the selection of three additional energy efficiency measures.

Newly constructed residential buildings that are six stories or less or are one or two family dwellings or townhouses must exceed the 2008 Title 24, Part 6 Standards by 15 percent or include all of the following energy efficiency measures:

1. Installation of a Radiant roof barrier; tested according to ASTM C-1371-98 or ASTM E 408-71(2002) and be certified by the Department of Consumer Affairs, as well as meeting the installation criteria specified in Section RA4.2.2 of the California Energy Commission Residential Appendices.
2. Gas-fired space heating equipment must have an Annual Fuel Utilization Ratio (AFUE) of 0.90 or higher.
3. Cooling equipment must be Seasonal Energy Efficiency Ratio (SEER) rated higher than 13.0 and an Energy Efficiency Ratio (EER) rated of at least 11.5.
4. The Energy Factor for a gas-fired storage water tank must be higher than 0.60 and for a gas-fired tankless water heater, 0.80 or higher.
5. For future solar systems, must provide a minimum of 250 square feet of unobstructed roof area facing 30 degrees of south for future solar collection or photovoltaic panels. Rough-in penetrations through the roof surface within 24 inches of the boundary of the area must be provided. Exceptions to these future solar installation requirements:
  - a. Roof with less than 1,000 square feet; may reduce the area to 25 percent of the roof.
  - b. Buildings designed and constructed with solar photovoltaic systems at the time of final inspection are exempted from this requirement.
  - c. Where it is not feasible to provide one contiguous area, two areas with a minimum combined area of 250 square feet may be provided.
  - d. Buildings designed with a green roof are exempt from this requirement.
6. For future access to solar systems, must provide a minimum one-inch electrical conduit from the electrical service equipment to an accessible location in the attic or other location approved by the enforcing agency.
7. To provide for natural light, must provide a minimum net glazed area of not less than 10 percent of the floor area of each room served.
8. To provide for natural ventilation, must provide a minimum open area to the outdoors of 5 percent of each floor area being served.

All remaining newly constructed residential buildings not covered by the above requirements and all newly constructed nonresidential buildings must exceed the 2008 Title 24, Part 6 Standards by 15 percent or include all of the following energy efficiency measures:

1. Installation of a Radiant roof barrier; tested according to ASTM C-1371-98 or ASTM E 408-71(2002) and be certified by the Department of Consumer Affairs.
2. The Energy Factor for a gas-fired storage water tank must be higher than 0.60 and for a gas-fired tankless water heater, 0.80 or higher.
3. Must provide an electrical conduit from the building roof or eave to a location within the building identified as suitable for future installation of a charge controller (or regulator) and inverter.
4. If battery storage is anticipated, conduit should run to a location within the building that is stable, weather-proof, insulation against very hot and very cold weather and isolated from occupied spaces.

The City of Glendale has made a written commitment to enforce compliance with their Local Energy Standards and Title 24, Part 6. Energy Commission staff has found that the application meets all requirements under Public Resources Code Section 25402.1(h)(2) and Section 10-106 of Title 24, Part 1 and recommends it for approval.

The complete application including the proposed ordinance and cost effectiveness analysis will be made available on the Energy Commission web site upon Energy Commission approval of the proposed ordinance.

#### Project Manager

Joseph M. Loyer, High Performance Buildings and Standards Development Office.

#### Summary of Staff Position

Energy Commission staff has found that the application meets all requirements under Public Resources Code Section 25402.1(h)(2) and Section 10-106 of Title 24, Part 1. Energy Commission staff believes that the City of Glendale is to be commended for seeking to achieve the energy savings that result from their local energy ordinance.

The City of Glendale has been informed that the approved ordinance will be enforceable while the *2008 Building Energy Efficiency Standards (Title 24, Part 6 of the California Building Code)* is enforced and upon implementation of new adopted State Standards, the City of Glendale will be required to resubmit an application for local energy standards under Public Resources Code Section 25402.1(h)(2) and Section 10-106 of Title 24, Part 1.

#### Oral Presentation Outline

Energy Commission staff will provide a brief summary and be available to answer questions if any arise.

Business Meeting Participants

Joseph M. Loyer, High Performance Buildings and Standards Development Office.

Commission Action Requested

Approval of the City of Glendale's locally adopted energy standards that result in more stringent energy requirements than the *2008 Building Energy Efficiency Standards*.

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Dave Ashuckian, Deputy Director  
Efficiency and Renewable Energy Division

